900 Northrop Road
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1.800.727.7483

nLight Installation & Start-up Documentation

for

nLight Network Lighting Control System

Contents:

- **nLight Installation & nSTARTUP Documentation Details and Instructions**
- **nLight Control System Installation Worksheet**
- **nLight Project Installation Forms**
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Documents can also be downloaded from our website by going to http://www.sensorswitch.com/nlight/docs/

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nLight Installation & Start-up Request Documentation Details and Instructions

nLight Control System Installation Worksheet/nLight Project Installation Form/ nSTARTUP Request Form

- Must be completed and returned to startups@acuitybrandscontrols.com prior to a startup being scheduled. Please see below for details.

Control System Installation Worksheet/Project Installation Form Details (6 Pages)

- Every nLight device with RJ-45 ports has 2 Device ID Stickers, one of which is removable, the other stays on the device. The removable stickers will be used by the contractor to complete the nLight Installation paperwork, see below for details.

Project Information Section (Top of page)

- Fill out project information fields located at the top of Page 1.

nGWY Serial Number

- Place the removable Device ID sticker(s) for the Gateways(s) in the boxes provided. If multiple Gateways are being used on the project, please provide the ID sticker and information for each Gateway.

Device count reported by Gateway on LCD screen

- The LCD screen of the Gateway displays the # of devices the Gateways is communicating with. The number of devices on a Gateways LCD screen should match the total # of devices connection to that Gateway.
    - All devices that have RJ-45 ports are counted, devices that do not have RJ-45 ports (Bridge and Gateway power supplies) are not counted.

  For example, if the first floor of a building has been installed with 250 nLight devices but the LCD screen of the Gateway has only discovered 110 devices, there is a breakdown in communication somewhere in the network and further troubleshooting is required. If assistance is needed please contact your nLight project manager or refer to the nLight Hardware manual for assistance.

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Number of downstream bridges

- Please record the total # of Bridges connected to each Gateway.

Every Network CAT-5A cable has been tested with a LAN cable tester & passed

- Confirm that every CAT-5 Cable has been tested with a LAN cable tester and passed.
- The preferred CAT 5 cable pin out for the nLight network is T568B.

All devices in use have active LED's

- Confirm that all powered devices in use have an active LED (please note capacitive touch wall controls and devices that do not have RJ-45 ports, do not have LED's).

On/Off Control has been verified

- If applicable, verify all On/Off control throughout installation. Field programming is not required for basic On/Off controls to function. This included manual On/Off functions vial wall control, and On/Off controls via sensor control.

Dimming Control has been verified

- If applicable, verify manual dimming functionality throughout installation. Field programming is not required for basic ON/OFF and manual dimming controls to function.

Gateway has a valid Ethernet connection (Link-up)

- If applicable, verify each network Gateway has its own dedicated Ethernet connection. When properly terminated and connected to an Ethernet source, the LCD screen will display LINK UP below the number of discovered network devices.

Signature of Installer

- Signature of Installer in charge of nLight Installation.

Comments

- If applicable, provide additional information about Gateway (i.e. floor, location, wing).

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Project Installation Form Details

- Must be completed and returned to startups@acuitybrandscontrols.com prior to a startup being scheduled. Please see below for details.
- # of Project Installation Forms filled out should equal the # of Bridges installed on a project. Copy of form also included in box Bridge is shipped in.

Bridge Serial #

- Place the removable Device ID sticker for the Bridge in the space provided. If multiple Bridges are being used on the project, please provide the ID sticker and information for each Bridge on separate Project Installation Forms.

Port # zone name

- Write the zone name in space provided (i.e. Room 101, Main Lobby…)
- Please indicate if the port on the Bridge is not being used (i.e. Spare, Not Used)
- Please indicate if the port on the Bridge is connected to another Bridge (i.e. to Bridge, from Bridge)
- If the space provided is not large enough to fit all of the device ID stickers please use the back of the form, or detail the modification made.

# of Devices

- Record the total # of devices (device with RJ-45 ports) connected to the port.

PLACE ID STICKER FOR DEVICES IN ZONE HERE

- Place the removable Device ID sticker for ALL of the zones devices in the space provided.

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nSTARTUP Request Form Details

- Must be completed and returned to startups@acuitybrandscontrols.com prior to a startup being scheduled. Please see below for details.
- Fill out project information fields located at the top of Page.

Special Requirements

- Complete section and provide additional information for special requirements not listed.

nLIGHT System Training Contact

- Complete section and provide contact information for person(s) responsible for coordinating onsite training and provide the names and titles of individuals attending the training.

Additional programming information/ Sequence of operations for all spaces (If Applicable)

- Provide programming information (i.e. Time based schedules/events, room operation instructions, programming requests…)

Gateway IP Addresses

- Provide IP addresses for Gateways (if Applicable).

For additional support please call 1.800.727.7483 and ask to speak with one of our regional nLight specialists.

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Control System Installation Worksheet

Date:_____ **Field Tech:** _____ **Page 1 of** _____

Project name:_____

Project location:_____

Project Contact Person/Contact Information:_____

To request Startup, send completed install form and nStartup Request form to: Startups@acuitybrandscontrols.com

Common nLight Terminology

- **nLight Control Zone**: A group of devices in a room or area that are daisy-chained wired together with CAT-5 cabling. One end of a zone should be connected to a port on a Bridge. The other end should always be left open. Devices can be wired in any order. Devices within a zone are powered from either an nPP16 power pack or from the Bridge to which it is connected.

- **WallPod**: A term for any nLight toggle or dimmer switch. All WallPods have model numbers that start with "nPOD".
- **Power Packs**: A general term for the nPP16 device that contains both a 16A line switching relay and supplies power to other devices over the CAT-5 cable. Similar devices include: slave relay packs (nSP*), auxiliary relay packs (nAR40), and power supplies (nPS 80).
- **Bridge**: A device used to hub several zones together. Each Bridge (nBRG*) connects to one or more other Bridges or a single Gateway to form a communication backbone. Bridges also supply power to downstream zones that do not have an nPP16 power pack
- **Gateway**: The device in an nLight network that connects the network of sensors, power packs, WallPods, and Bridges to the building's Ethernet. Requires a network drop similar to a network printer. Model number nGWY.

CAT-5 Wiring Requirements: RJ-45 Male Terminations (T568B)
1500 ft max cable length per zone

Notice: It is imperative that all CAT-5 cables be tested with a LAN Cable Tester to verify proper RJ-45 terminations.

Control Verification Methods: Listed below are methods of testing a zone for proper electrical control of the lights. Check all wiring connections if test fails.

Method 1 (requires WallPod): Toggle lights On/Off or dim lights Up/Down by pressing WallPod.

Method 2 (requires Occupancy Sensor): Vacate zone and wait for occupancy sensor to time-out. Default time delay is 10 minutes. Note sound will reset time delay on dual technology (PDT) sensors.

Method 3 (requires Photocell): Shine flashlight into Photocell. LED will blink rapidly and lights will begin to dim. After 20 min of blinking, lights will turn off.

- **Notice: Product LEDs provide status information. Refer to individual device instruction cards (included in boxes) for more information. (www.sensorswitch.com/nlight/docs)**

Fill out the table below to verify proper Bridge and Gateway Installation. Entire Section MUST be filled out

nGWY Serial Number	Device count reported by Gateway on LCD screen	Number of downstream Bridges	Every Network CAT-5 cable has been tested with a LAN cable tester & passed	All Devices in use have active LEDs	On / Off Control has been verified	Dimming Control has been verified	Gateway has a valid Ethernet connection (Link-Up)	Signature of Installer X_____ Comments /Location (i.e. 1st Floor)

nLIGHT System Installation Worksheet (cont)

Project name _____**Date**_____ **Page** ____ **of** _____

nGWY	Device count reported by Gateway on LCD screen	Number of downstream Bridges	Every Network CAT-5 cable has been tested with a LAN cable tester & passed	All Devices in use have active LEDs	On / Off Control has been verified	Dimming Control has been verified	Gateway has a valid Ethernet connection (Link-Up)	Signature of Installer X_____ Comments /Location (i.e. 1st Floor)

PROJECT INSTALLATION

BRIDGE SERIAL # _____

Port 1 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 2 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 3 zone name:_____ **# of devices** _____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 4 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 5 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 6 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 7 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 8 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

ADDITIONAL SPACE ON OTHER SIDE IF NEEDED

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PROJECT INSTALLATION

BRIDGE SERIAL # _____

Port 1 zone name:_____**# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 2 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 3 zone name:_____**# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 4 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 5 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 6 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 7 zone name:_____**# of devices** _____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

Port 8 zone name:_____ **# of devices**_____

PLACE ID STICKER FOR DEVICES IN ZONE HERE

ADDITIONAL SPACE ON OTHER SIDE IF NEEDED

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nSTARTUP REQUEST

Project name:_____ **Date:**_____

Project address:_____

Date(s) Requested*:_____ **Time(s) Requested:**_____

***Note: General lead time is 2 weeks upon approval of nSTARTUP request and required Installation Worksheet**

Please email nSTARTUP Request Form along with Completed nLight Installation Worksheet to **startups@acuitybrandscontrols.com**
**Please see Terms and Conditions for nSTARTUP details

Electrical Contractor Company Name:_____

Contact Information of EC that will be present during startup:

Name:_____

Phone #:_____ Email address:_____

- **Special requirements**:

Hard hat ☐ Steel toed boots ☐ Safety glasses ☐ Safety vest ☐ Background check ☐

Working outside of normal business hours?Y/N _____ If so, what hours are required?_____

Other _____

nLight System Training Contact:

Phone #:_____ Email address:_____

Is the host computer/server on premises? Y/N _____ Does host server meet all Minimum OS requirements? Y/N _____

Has SensorView software been installed? Y/N _____ If No, who should be contacted to discuss?_____

*SensorView user manual can be found by visiting, **http://www.sensorswitch.com/nlight/docs/SensorView_Manual.pdf**
*SensorView Installation Instructions and OS requirements can be found in the Appendix, Page 1.

Trainees:

Name/Title_____ Name/Title_____

Name/Title_____ Name/Title_____

Name/Title_____ Name/Title_____

Additional programming information / Sequence of operation for all spaces (If Applicable):

_____

_____

_____

_____

_____

_____

Gateway IP Addresses:

_____ _____ _____ _____ _____

nSTARTUP Terms & Conditions

nSTARTUP [max # days]:

- One on-site visit of a predetermined maximum number of consecutive days by a certified nLight Startup Agent during normal business hours.
- Visit must be scheduled two weeks in advance (nLight Installation Worksheets required prior to scheduling startup visit).
- Completed nLight Installation Worksheet required prior to scheduling startup visit. Worksheet must be completed by electrical contractor and can be downloaded from:

  http://www.sensorswitch.com/nlight/docs/nLight_Installation_Worksheet.pdf

- Accuracy of worksheet will be verified by startup agent, who will not be held responsible for time spent troubleshooting installation errors by electrical contractor. Sensor Switch reserves the right to back charge the contractor at the current rate per day plus expenses for additional days spent on site troubleshooting installation errors (including, but not limited to miswired CAT-5 terminations). If a second site visit is required, full initial daily cost will apply.
- If start-up of SensorView software is required, a host computer must be supplied and installed prior to agent visit. It is not required that host machine be new or dedicated for SensorView, but host computer must meet minimum operating specifications as listed in the SensorView Installation Guide. Installation Guide and SensorView User Manual are available for download from:

  http://www.sensorswitch.com/nlight/docs/install.pdf

  http://www.sensorswitch.com/nlight/docs/SensorView_Manual.pdf

- Please note that SensorView requires that the following Windows components be installed prior to agent visit:
  IIS (Internet Information Services)
  .NET Framework
- Installation guide has details on installing these Windows components.
- If static IP addresses are required for use with Gateway devices, they must be provided to prior to arrival on site.
- Failure to complete any of these steps may result in postponement of site visit, or additional startup days to be billed. If a second site visit is required, full initial daily cost will apply.
- Visit includes a complete system function test as well as basic system operation and maintenance instruction.
- Depending on network design, customer requests, and time limitations, tasks performed by startup agent may include the following:

  - Verify accuracy of nLight Installation Worksheet
  - Install SensorView software on user supplied computer (a host computer must be on site and meet the minimum operation operation specifications)
  - Verify discovery of all network devices by SensorView software
  - Set-up user accounts
  - Customize network device labels (if supplied)
  - Edit default operation
  - Perform any necessary firmware updates
  - Create Groups/Profiles
  - Print Inventory and Network reports
  - Perform system backup
  - ½ day of training of network administrator or facility management personnel on basic operation. (Additional training time or follow up training visits can be purchased separately). Prior to arrival, a list of all attendees for training must be provided to startup agent.

- Refunds for unused days not given if startup tasks requires less than maximum number of days quoted.

nTRAINING:

- One half (1/2) day of follow up instruction by a certified nLight Startup Agent during normal business hours.
- Visits must be scheduled two weeks in advance
- Prior to arrival, a list all attendees for training must be provided to startup agent.

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